Entergy

Entergy Nuclear Northeast
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 1
P.O. Box 249
Buchanan, NY 10511-0249

February 25, 2002

Re: Indian Point Unit No. 2
Docket No. 50-247
LER 2001-007-00
NL-02-022

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop O-P1-17
Washington, DC 20555-0001

Dear Sir:

The attached Licensee Event Report 2001-007-00 is hereby submitted in accordance with the requirements of 10 CFR 50.73.

There are no commitments contained in this letter

Sincerely,

Fred Dacimo
Vice President - Operations
Indian Point 2

Attachment

cc: Mr. Hubert J. Miller
Regional Administrator - Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Mr. Patrick D. Milano, Senior Project Manager
Project Directorate I
Division of Licensing Project Management
U.S. Nuclear Regulatory Commission
Mail Stop O-8-C2
Washington, DC 20555

Senior Resident Inspector
U.S. Nuclear Regulatory Commission
PO Box 38
Buchanan, NY 10511

IE22

NRC FORM 366 U.S. NUCLEAR REGULATORY COMMISSION
(6-1998)

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001

Estimated burden per response to comply with this mandatory information collection request: 50 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

FACILITY NAME (1)	DOCKET NUMBER (2)	PAGE (3)
Indian Point, Unit 2	05000247	1 OF 4

TITLE (4) Automatic Reactor trip initiated by a main turbine trip on auto stop oil.

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
										05000
12	26	2001	2001	-007-	00	02	25	2002	FACILITY NAME	DOCKET NUMBER 05000

OPERATING MODE (9)	N	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more) (11)			
POWER LEVEL (10)	000	20.2201(b)	20.2203(a)(2)(v)	50.73(a)(2)(i)	50.73(a)(2)(viii)
		20.2203(a)(1)	20.2203(a)(3)(i)	50.73(a)(2)(ii)	50.73(a)(2)(x)
		20.2203(a)(2)(i)	20.2203(a)(3)(ii)	50.73(a)(2)(iii)	73.71
		20.2203(a)(2)(ii)	20.2203(a)(4)	X 50.73(a)(2)(iv)(A)	OTHER -
		20.2203(a)(2)(iii)	50.36(c)(1)	50.73(a)(2)(v)	Specify in Abstract below or in NRC Form 366A
		20.2203(a)(2)(iv)	50.36(c)(2)	50.73(a)(2)(vii)	

LICENSEE CONTACT FOR THIS LER (12)

NAME	TELEPHONE NUMBER (Include Area Code)
T. R. Jones, Licensing Engineer	(914) 734-5190

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
B	FK	RLY	W120	Y						

SUPPLEMENTAL REPORT EXPECTED (14)			EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).	X	NO				

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines) (16)

On December 26, 2001 at 0720 hours Indian Point Unit 2 experienced an automatic reactor trip with all control rods fully inserting. The trip was initiated by a main turbine trip on auto stop oil.

The auto stop oil turbine trip was caused by a trip of over frequency relays actuated by a disturbance associated with the 345 Kv Bus W93. This disturbance caused generator output breaker 9 to open. The cause of the over frequency relays actuation was failure of the blocking relay [EIIS:FK:68] on Consolidated Edison's 345 Kv feeder Y94. This failure caused the breakers on Y94 to open causing loss of load to the main generator and an over frequency trip. The over frequency trip caused the turbine trip. The turbine trip resulted in the generator trip. The generator trip caused the Indian Point 2 345 Kv generator output breaker 7 to open.

The resultant trip placed the plant in natural circulation with 480-volt buses 2A and 3A de-energized as per design. All three Emergency Diesel Generators (EDGs) started and buses 2A and 3A were manually energized by 22 EDG, this was an expected response. 480-volt buses 5A and 6A remained energized from off-site sources during this event. No steam generator or pressurizer safety valves lifted and actuation of the Safety Injection System was not required. No radioactive release to the environment occurred as a result of this transient.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

PLANT AND SYSTEM IDENTIFICATION

Westinghouse 4-Loop Pressurized Water Reactor

EVENT IDENTIFICATION

Automatic Reactor trip initiated by a main turbine trip on auto stop oil.

EVENT DATE

December 26, 2001

REFERENCE

Condition Reporting System Number: 200112878

PAST SIMILAR EVENTS

Licensee Event Report Number: 1997-018-00

EVENT DESCRIPTION

On December 26, 2001 at 0720 hours Indian Point Unit 2 experienced an automatic reactor trip with all control rods fully inserting. The trip was initiated by a main turbine trip on auto stop oil.

The auto stop oil turbine trip was caused by a trip of over frequency relays actuated by a disturbance associated with the 345 Kv Bus W93. This disturbance caused generator output breaker 9 to open. The cause of the over frequency relays actuation was failure of the blocking relay [EIIS:FK:68] on Consolidated Edison's 345 Kv feeder Y94. This failure caused the breakers on Y94 to open causing loss of load to the main generator and an over frequency trip. The over frequency trip caused the turbine trip. The turbine trip resulted in the generator trip. The generator trip caused the Indian Point 2 345 Kv generator output breaker 7 to open.

The resultant trip placed the plant in natural circulation with 480-volt buses 2A and 3A de-energized as per design. All three Emergency Diesel Generators (EDGs) started and buses 2A and 3A were manually energized by 22 EDG, this was an expected response. 480-volt buses 5A and 6A remained energized from off-site sources during this event. No steam generator or pressurizer safety valves lifted and actuation of the Safety Injection System was not required. No radioactive release to the environment occurred as a result of this transient.

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TEXT *(If more space is required, use additional copies of NRC Form 366A)* **(17)**

EVENT ANALYSIS

This event is reportable in accordance with 10CFR50.73(a)(2)(iv)(A) which requires a Licensee Event Report (LER) for any event that resulted in manual or automatic actuation of the Reactor Protection System (RPS) including: reactor scram or reactor trip.

EVENT SAFETY SIGNIFICANCE

This event was initiated as a result of a grid disturbance on the North 345 Kv ring bus at the Buchanan switchyard. This is an expected plant response due to the actuation of the over-frequency protection circuit. These relays were added as part of a plant modification after a similar event in July 1997 resulted in a 100% load reject. Since this event is bounded by section 14.1.12 (Loss of all power to the Station Auxiliaries) of the Updated Final Safety Analysis Report (UFSAR) the safety significance was determined to be minimal.

CORRECTIVE ACTION

The root cause of this event was the failure of a blocking relay on Consolidated Edison's 345 Kv line Y94. Under normal current carrying conditions the blocking relay operated as designed, however under full transient voltage conditions the circuit internal to the relay developed a ground. This caused the breakers on Y94 to open resulting in the over frequency trip of the turbine. The failed blocking relay was replaced prior to plant restart. Consolidated Edison is continuing its investigation into cause of the blocking relay failure.

PREVIOUS OCCURRENCES

A similar event occurred July 26, 1997 and is documented in LER 1997-018-00. A 100% lost of external load occurred due to a Buchanan switchyard fault in coincidence with a line outage. The root cause of the July 26, 1997 event was a mis-operation of a directional relay device associated with transformer TA5. As a result of that event, over-frequency relays were added to the overall unit protection scheme. The over-frequency relays actuated as per design for the December 26, 2001 event.